

## CLAIMS

1. A data management method to more correctly bill a customer of a reseller of telephone service based on wholesale billing data of a telephone company, the method comprising the steps of:

  - accessing a very small part of the wholesale billing data;
  - excluding a portion of the accessed information from subsequent data manipulation; and
  - generating tabulated data from the un-excluded data in the accessed information through data manipulation;
  - wherein the tabulated data and the wholesale billing data are in two different data formats.
2. A method as recited in Claim 1 wherein:

  - the step of excluding also includes the step of transforming the un-excluded wholesale billing data from one data format to another data format; and
  - the step of generating is based on at least a user-preference.
3. A method as recited in Claim 1 wherein:

  - the reseller has internal billing information regarding charges of the telephone service provided to the customer; and
  - the method further comprises the step of comparing tabulated data from wholesale billing data with the reseller's internal billing information for correctly billing the customer.
4. A method as recited in Claim 1 wherein the wholesale billing data includes at least three subsets of data, namely, monthly recurring charge data, usage summary and toll usage details.

5. A method as recited in Claim 4 wherein:  
the monthly recurring charge data includes billing telephone numbers and station numbers,  
the usage summary includes billing telephone numbers; and  
the toll usage details include station numbers;  
such that the usage summary can be linked to the toll usage details through the monthly recurring charge data.
6. A method as recited in Claim 5 wherein the step of comparing depends on descriptions related to Universal Service Ordering Code.
7. A method as recited in Claim 1 wherein:  
the steps of accessing, excluding and generating use a single user interface; and  
the tabulated data is not in EBCDIC data format and the wholesale billing data is in EBCDIC data format.
8. A method as recited in Claim 1 wherein:  
the method is performed by a first computer; and  
the wholesale billing data was generated by a second computer.
9. A method as recited in Claim 8 wherein:  
the second computer has at least ten times more memory capacity and at least ten times higher computation speed than the first computer; and  
the tabulated data is not in EBCDIC data format and the original wholesale billing data is in EBCDIC data format.

10. A method as recited in Claim 1 further comprising the step of repeating from the step of accessing after the step of generating to access another very small part of the wholesale billing data, with this other very small part overwriting the previously-accessed very small part.
11. A method as recited in Claim 1 wherein:  
the wholesale billing data includes a set of monthly recurring charge data; and  
the method further comprising the step of identifying the set of monthly recurring charge data by a process including the steps of:  
identifying a billing telephone number;  
identifying a Universal Service Ordering Code;  
identifying a Universal Service Ordering Code quantity; and  
identifying a Universal Service Ordering Code rate.
12. A method as recited in Claim 11 wherein:  
the billing telephone number is a 10-digit numeric number;  
the Universal Service Ordering Code is a piece of 5-character long alpha numeric data;  
the Universal Service Ordering Code quantity is a 9-digit numeric number; and  
the Universal Service Ordering Code rate is a 11-digit numeric number.
13. A <sup>data</sup> management apparatus to more correctly bill a customer of a reseller of telephone service based on wholesale billing data of a telephone company, the system comprising:  
an accessor configured to access a very small part of the wholesale billing data, and to exclude a portion of the accessed information from subsequent data manipulation; and  
a generator configured to generate tabulated data from the un-excluded data in the accessed information through data manipulation;

such that the tabulated data and the wholesale billing data are in two different  
data formats.

14. An apparatus as recited in Claim 13 wherein:  
the accessor is also configured to transform the un-excluded wholesale billing  
data from one data format to another data format; and  
the generator is also configured to generate based on at least a user-preference.

15. An apparatus as recited in Claim 13 wherein:  
the reseller has internal billing information regarding charges of the telephone  
service provided to the customer; and  
the apparatus further comprises a comparator configured to compare tabulated  
data from a plurality of cells of information with the reseller's internal billing information  
for correctly billing the customer.

16. An apparatus as recited in Claim 13 wherein the wholesale billing data includes  
at least three subsets of data, namely, monthly recurring charge data, usage summary  
and toll usage details.

17. An apparatus as recited in Claim 16 wherein:  
the monthly recurring charge data includes billing telephone numbers and station  
numbers;  
the usage summary includes billing telephone numbers; and  
the toll usage details include station numbers;  
such that the usage summary can be linked to the toll usage details through the  
monthly recurring charge data.

18. An apparatus as recited in Claim 17 wherein the comparator depends on  
descriptions related to Universal Service Ordering Code.

19. An apparatus as recited in Claim 13 wherein:  
the apparatus has a single user interface; and  
the tabulated data is not in EBCDIC data format and the wholesale billing data  
is in EBCDIC data format.
20. ~~An apparatus as recited in Claim 13 wherein the wholesale billing data was  
generated by a computer different from the apparatus.~~
21. An apparatus as recited in Claim 20 wherein:  
the computer has at least ten times more memory capacity and at least ten times  
higher computation speed than the apparatus; and  
the tabulated data is not in EBCDIC data format and the original wholesale  
billing data is in EBCDIC data format.
22. An apparatus as recited in Claim 13 wherein:  
the wholesale billing data includes a set of monthly recurring charge data; and  
the apparatus is further configured to identify the set of monthly recurring  
charge data by a process including the steps of:  
identifying a billing telephone number;  
identifying a Universal Service Ordering Code;  
identifying a Universal Service Ordering Code quantity; and  
identifying a Universal Service Ordering Code rate.
23. An apparatus as recited in Claim 22 wherein:  
the billing telephone number is a 10-digit numeric number;  
the Universal Service Ordering Code is a piece of 5-character long alpha  
numeric data;  
the Universal Service Ordering Code quantity is a 9-digit numeric number; and  
the Universal Service Ordering Code rate is a 11-digit numeric number.